Remarks

Claims 22-39 are pending, of which claims 22, 25-31 and 34-39 stand rejected. In particular, in the Office action of July 6, 2011, claims 22, 27-31 and 36-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 2004/0151171 A1) in view of Rychlicki (US 2003/0020982 A1). Claims 25 and 34 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. and Rychlicki, as applied to claims 22 and 31 above, and further in view of Shiomoto (US 2003/0128981 A1). Claims 26 and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. and Rychlicki, as applied to claims 22 and 31 above, and further in view of LoCascio et al. (US 2002/0196497 A1).

Neither Lee et al. nor Rychlicki teaches or suggests the feature recited in independent claim 22 of an optical switch arranged to *"schedule the data packet from the queue only when at least a minimum number, greater than one, of output wavelengths for the destination are vacant"*. Likewise, the feature is recited in independent method claim 31 as the step of *"scheduling the data packet from the queue only when at least a minimum number, greater than one, of output wavelengths for the destination are vacant"*.

The Examiner correctly notes at the top of page 4 of the Office action, and again on page 6, that Lee et al. does not teach this feature. The Office action asserts that Rychlicki teaches or renders obvious this feature, citing paragraphs 163, 164, and 15 of Rychlicki. However, Applicant argues that Rychlicki does not supply this missing feature either.

Rychlicki relates to the problem of <u>establishing communication paths</u> across an optical network between access

devices (paragraph 159). This is quite different from the
problem of scheduling individual data packets out of a
switch, addressed by Lee et al. and the present invention.
A path in Rychlicki is a communication connection from one
access device to another access device, across the network's
infrastructure of core devices (paragraph 116). In other
words, Rychlicki describes a "call setup protocol"
(paragraph 20) carried out using a signaling system
(paragraph 118). It is not concerned with the details of
the subsequent transmission of user data over the optical
path, once the path has been established. In particular,
Rychlicki does not describe the scheduling of data packets
from a switch, and certainly does not teach or suggest
queuing data packets in a switch and scheduling a packet
when at least a minimum number, greater than one, of output
wavelengths for the destination are vacant.

The person of ordinary skill would not think to apply
the path-establishment steps of Rychlicki to the optical
router of Lee et al. Even if such a combination were to be
made, it would not provide an optical switch having the
recited scheduling of data packets from the queue as recited
in the independent claims 22 and 31.

Paragraphs 163 and 164 of Rychlicki were cited in the
Office action for teaching the feature of "waiting until a
number of wavelengths are available (i.e. more than one)".
However Rychlicki does not disclose waiting until <u>more than
one</u> output wavelength is available before establishing a
path, and in fact teaches away from such an idea. At step
five of its protocol for establishing a one-way or two-way
optical path between two devices, Rychlicki discloses
checking to see if each of the requesting and destination
access devices has "one or two available unreserved
wavelengths, <u>one for transmit</u>, and one for receive (if

necessary)" (paragraph 164; underlining added). In other words, path establishment is said to proceed so long as a single transmit wavelength is available. In light of this clear teaching of the need for just a single available transmit wavelength, the person of ordinary skill would not be motivated to impose any alternative or additional conditions such as requiring there to be a minimum number of vacant output wavelengths greater than one before establishing a path.

In summary, Rychlicki describes a path-establishment protocol carried out by a signaling system and therefore is not relevant to the field of packet-scheduling by an optical switch. Moreover, Rychlicki does not, in any case, teach or suggest the idea of performing an action (such as scheduling a data packet) only when at least a minimum number greater than one of output wavelengths is vacant. The optical switch of claim 22 is thus novel and inventive over Lee et al. in view of Rychlicki. The method of claim 31 corresponds to the optical switch of claim 22 and is novel and inventive for at least the same reasons.

The rejected dependent claims 25-30 and 34-39 incorporate by reference all of the features present in their respective independent base claims 22 and 31, including the packet scheduling feature argued above, and therefore are deemed patentable for the same reasons.

Claims 23, 24, 32 and 33 are identified as being objected to as being dependent upon rejected claims 22 and 31. Applicant declines, at this time, to rewrite claims 23 and 32 into independent form, in light of the arguments given herein for the patentability of their respective base claims.

Conclusion

All of the pending claims are believed to be in condition for allowance in light of the arguments made herein. Applicant requests reconsideration of the rejections in light of these arguments. A Notice of Allowance is earnestly solicited.

The Examiner is requested to contact the undersigned attorney prior to an Office action at 408-297-9733 between 9:00 AM and 5:00 PM PST.

You are authorized to charge any fee deficiency or credit any overpayment to Deposit Account No. 19-0590.

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I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted via the Office electronic filing System in accordance with §
1.6(a)(4).

Signed: _____
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